

SUBJECT: Lockdown Carbon Savings

Introduction

Lincolnshire County Council (LCC) along with the majority of other Local Authorities and private business sent home those employees that were able to work from home in late March 2020. As of mid-August 2020 LCC employees are still working from home and are unlikely to be returning to offices until mid to late January 2021 at the earliest.

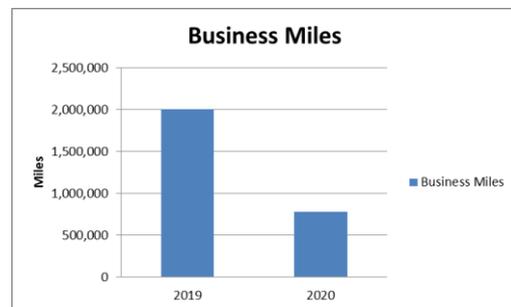
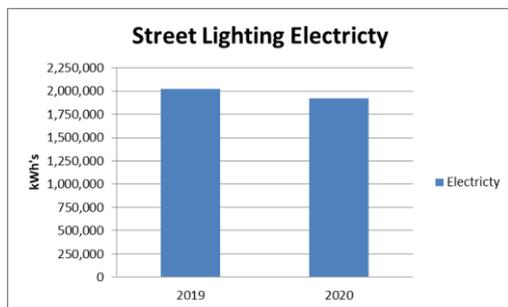
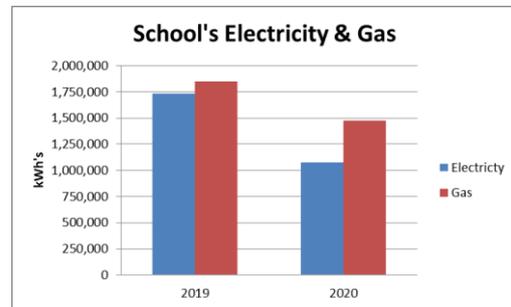
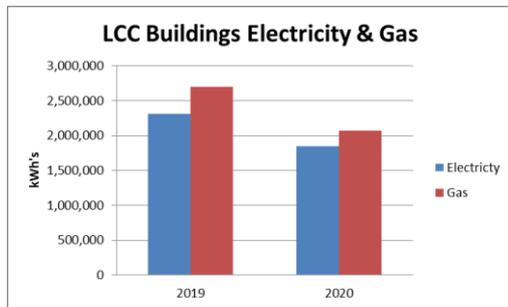
At present there has been no discernible drop in output and residents of Lincolnshire are still being provided with the same quality of service as that of pre lockdown.

LCC is at present looking at how it will provide services in the future with COVID 19 still circulating or sporadically flaring up especially in the winter months. It is worth noting that although COVID 19 may be eradicated through vaccinations, the situation that led to the country being placed in lockdown could easily re-occur if another virus was to emerge. Also the No1 risk on LCC's risk register is a pandemic.

Data Analysis

Data is now available for the first quarter of the financial year (1st April 2020 – 31st June 2020) for electricity and gas and that can be compared to the first quarter of the previous year (1st April 2019 – 31st June 2019). This date covers electricity and gas for LCC properties, maintained schools and business mileage.

This data has been used to produce the 4 graphs below that clearly show significant reductions in electricity and gas consumption across LCC buildings, Schools and Street Lighting, and a significant reduction in Business Miles. This data will allow the estimation of carbon savings due to lock down and what affect that will have on LCC's commitments through its Carbon Management Plan and ambition to be Net Zero by 2050.



The table below shows the amount of savings in CO₂ that have been achieved in the first 3 months of lockdown.

Category	2019 (CO ₂)	2020 (CO ₂)	% Reduction	Savings (CO ₂)
LCC Buildings	1083	807	25%	276
Maintained Schools	781	521	33%	260
Street Lighting	513	445	13%	68
Business miles	550	214	61%	336
			Total	940

Opportunities

It is unlikely that the full 940 tonnes of CO₂ could continue to be made throughout the year and to estimate the potential annual savings the following assumptions have been made:

- **LCC buildings** – These savings could potentially continue to be made. A permanent change towards increased home working could allow a review of LCC building stock. It is likely some buildings could be disposed of through such a review. **Maintained Schools** – It is unlikely that any further savings will be seen for schools after the first quarter as they will reopen in September. Although they may operate slightly differently post COVID 19 they are likely to consume the same amount of electricity and gas in their operations.
- **Street Lighting** – These savings are being seen through the LED replacement programme and not due to lockdown.
- **Business miles** – It is hoped that the significant level of reduction in business miles can be maintained through a permanent policy change. This would ensure the continued use of Microsoft Teams for meetings and home working as the preferred meeting method.

Therefore, the potential annual reduction in CO₂ could be as follows:

- **LCC Buildings** – 276 tonnes of CO₂ per quarter = 1,104.
- **Maintained Schools** – First quarter of CO₂ savings only = 260.
- **Street Lighting** – These savings will not be included in lockdown calculations.
- **Business miles** – 336 tonnes of CO₂ per quarter = 1,344.

This means that the potential CO₂ savings for the 2020/21 reporting year are:

- **LCC buildings** – 1,104 tonnes CO₂.
- **Maintained Schools** – 260 tonnes CO₂.
- **Business miles** – 1,344 tonnes CO₂.
- **TOTAL** = 2,708 tonnes CO₂.

To give some context to this figure LCC's Carbon Management Plan 3 had a baseline of 28,679 tonnes of CO₂ and the council committed to a 20% saving over 5 years meaning 5,736 tonnes of CO₂ needs to be saved to meet that commitment. There are 3 years left to the March 2023 deadline and if we continued to achieve the annual 2,708 tonnes saving it gives a potential saving of 8,124 tonnes of CO₂ savings above and beyond any other energy saving initiatives.

Emissions calculations should be considered in the round. Colleagues will be using energy within their own homes, thus displacing some emissions. It is also likely that emissions reduction will be seen due to the lack of commuting taking place. Future guidance from government is anticipated to ensure carbon accounting remains accurate and avoids duplication. Meanwhile opportunities to support staff to reduce emission within their own homes could be considered as part of the Green Masterplan work.

Conclusion

LCC must be aware that some of the emissions saved through buildings not being occupied is being used in employee's homes. Hopefully guidance may be given through the Department for Business, Energy & Industrial Strategy as to whether Local Authorities should account for those emissions or allow them to be collated through National Carbon emission figures.

It is paramount that any initiatives that have been introduced during lockdown are continued and enhanced and that we do not go back to business as usual and lose this once in a lifetime opportunity that has arisen albeit through a pandemic.

The following sources were used for the data calculations as follows:

- Greenhouse gas reporting: conversion factors 2019:
 - Electricity 0.25358 Kg CO₂/kWh.
 - Gas 0.18409 Kg CO₂/kWh.
 - Business miles 0.27382 Kg CO₂/mile.
- Greenhouse gas reporting: conversion factors 2020:
 - Electricity 0.23104 Kg CO₂/kWh.
 - Gas 0.18387 Kg CO₂/kWh.
 - Business miles 0.27382 Kg CO₂/mile.

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